

Application Ser. No. 09/816,941

Art Unit 2871

REMARKS

Claims 1 - 9, 11 - 20, and 22 - 33 are pending in the application. Of these claims, 11 - 20, 22, 23 and 30 - 33 are withdrawn from consideration. Claim 21 was previously canceled, and claim 10 is canceled by the present amendment.

On 24 APR 2002, Applicants mailed an Information Disclosure Statement with a PTO-1449 that lists two references. Applicants have not yet received a copy of the PTO-1449 showing that the Office considered the references. Applicants respectfully request that with the next Office communication the Examiner send a copy of the PTO-1449 acknowledging that the Office has considered the references.

In section 4 of the Office Action, claims 1 - 14 and 24 - 27 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over several claims of copending Application No. 09/816,942, and several claims of copending Application No. 09/815,999. Whereas neither of the copending applications have yet issued as patents, and whereas the claims of the present application are not yet allowed, Applicants believe that it is not necessary to affirmatively address this rejection at the present time. Accordingly, Applicants respectfully request that the Examiner defer judgment with respect to this rejection.

In section 5 of the Office Action, claim 10 is objected to as being a substantial duplicate of claim 8. Applicants canceled claim 10. Withdrawal of the objection is respectfully solicited.

In section 7 of the Office Action, claims 1 - 14 and 25 - 29 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,917,570 to Bryan-Brown et al. (hereinafter "the Bryan-Brown et al. patent"). Applicants note that although the Office Action states that claims 1 - 4, 8, 10 - 14 and 23 are being rejected, it is apparent from the narrative of section 7 that this rejection is directed toward claims 1 - 14 and 25 - 29. Applicants are traversing the rejection of claims 1 - 14 and 25 - 29.

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Claim 1 provides for a liquid crystal device. The liquid crystal device includes, *inter alia*, a surface alignment structure on an inner surface of a first cell wall providing a single desired alignment to a liquid crystal director. The surface alignment structure comprises a two dimensional array of alignment posts which are at least one of shaped and orientated to produce the desired alignment.

The Bryan-Brown et al. patent is directed toward a liquid crystal alignment device. The Bryan-Brown et al. patent indicates that pretilted alignment is essential for liquid crystal (col. 1, lines 59 – 61), and states that the device addresses this issue by varying a profile of a groove along its length whereby the pretilt can be arranged to have selected values (col. 1, lines 65 – 67).

The Office Action, on page 4, suggests that the Byran-Brown et al. patent discloses (i) at col. 3, lines 64 – 66, that a surface alignment structure provides a desired alignment, and (ii) at col. 2, lines 36 – 43, that the surface alignment structure comprises a two dimensional array of posts which are at least one of shaped and orientated to produce the desired alignment. Applicants respectfully disagree.

The Bryan-Brown et al. patent, at col. 3, lines 64 – 66 states:

Prior to assembly the cell walls 3, 4 are surface alignment treated with bigratings ... to provide a desired surface pretilt (emphasis added),

and at col. 2, lines 36 – 43 states:

The gratings may be formed of a photoresist material, or of a plastics material formed by embossing of eg [sic] polyolefin. The embossed material may also provide small pillars ... for assisting in correct spacing apart of the cell walls and also for a barrier to liquid crystal material flow when a cell is flexed. Alternatively the pillars may be formed by the material of the gratings (emphasis added).

Whereas the Bryan-Brown et al. patent expressly discloses that:

- (i) alignment is provided by **bigratings, i.e., grooves**, not by use of alignment posts and

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(ii) small pillars are for assisting in **correct spacing** of cell walls and for a **barrier** to liquid crystal material flow, not for alignment of the liquid crystal, the Bryan-Brown et al. patent does not disclose that a surface alignment structure comprises a **two dimensional array of alignment posts** which are at least one of shaped and orientated to **produce the desired alignment**, as recited in claim 1. Thus, the Bryan-Brown et al. patent does not anticipate claim 1.

Claims 2 - 9, 11 - 14 and 25 - 29 depend from claim 1. By virtue of this dependence, claims 2 - 9, 11 - 14 and 25 - 29 are also novel over the Bryan-Brown et al. patent.

Claim 10 is canceled. As such, the rejection of claim 10 is rendered moot.

Applicants respectfully request reconsideration and withdrawal of the section 102(b) rejection of claims 1 - 14 and 25 - 29.

In section 9 of the Office Action, claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Bryan-Brown et al. patent. Applicants are traversing this rejection.

Claim 24 depends from claim 1. As explained above in support of claim 1, in the Bryan-Brown et al. patent, (i) alignment is achieved by use of a bigrating, not by use of alignment posts, and (ii) the small pillars disclosed by the Bryan-Brown et al. patent are not provided for alignment of the liquid crystal. Since the Bryan-Brown et al. patent does not disclose an array of alignment posts to produce the desired alignment, it cannot be obvious in view of the Bryan-Brown et al. patent, to provide such posts with a square cross section, as recited in claim 24. Thus, claim 24 is patentable over the Bryan-Brown et al. patent.

Applicants respectfully request reconsideration and withdrawal of the section 103(a) rejection of claim 24.

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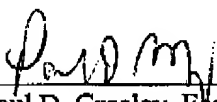
Since this amendment neither raises new issues nor requires further consideration, entry is respectfully solicited. If the Examiner deems that the present amendment does not place the application in condition for allowance, Applicants respectfully request that it be entered for the purpose of appeal.

In view of the foregoing, Applicants respectfully submit that all claims presented in this application patentably distinguish over the prior art. Accordingly, Applicants respectfully request favorable consideration and that this application be passed to allowance.

Respectfully submitted,

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Date



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